

# RESOURCE USE

*We've got to conserve energy. But conservation is only one half of the equation. In order to become less dependent on foreign sources of energy, we've got to find and produce more energy at home.*

*President George W. Bush, January 28, 2002*

With responsibility for managing one-fifth of the Nation's land and 1.76 billion acres of the Outer Continental Shelf, the Department of the Interior is key to helping the Nation meet the needs of today's dynamic economy while promoting resource protection goals. Through its resource use activities, the Department is expected to generate revenues to the Treasury of around \$7.8 billion in 2004.

## RESOURCE USE MISSION

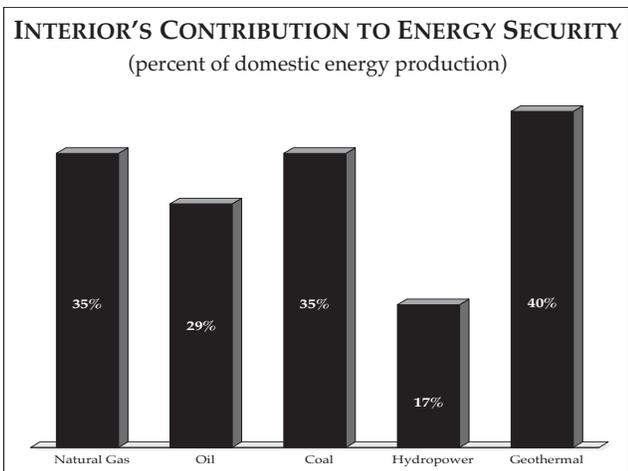
**The Department of the Interior will support our society – a society capable of responsibly meeting its resource needs to sustain a dynamic economy.**

On January 16, 2003, Interior released the results of a comprehensive review of Federal oil and gas resources in five basins in the West. The inventory identified an estimated 3.9 billion barrels of reserves and technically recoverable oil and 138.5 trillion cubic feet of gas. Developed in collaboration with the public, including the people in these regions, the inventory provides a basis for developing land management strategies. Providing access for the development and production of energy is a key strategic goal for the Department. Federally managed lands and offshore oil and gas areas supply more than one-fourth of domestic production.

Departmentally managed water projects yield 17 percent of the Nation's hydropower production. A key strategic objective of the Department is to manage these resources to enhance public benefit and promote responsible use.

The Department's 2004 budget requests \$1.5 billion toward fulfilling its mission of providing access to resources on public lands. Increased investment in resource use activities include:

- New directions in water and power management
- Expanded energy development of Alaska's North Slope
- Coalbed natural gas development in the Powder River and San Juan Basins
- Renewable energy development
- Enhanced energy development of tribal and offshore resources
- Investigation of emerging energy sources
- Forestry program improvements



## WATER AND POWER

Reclamation is the largest supplier and manager of water in the 17 western States and is the Nation's second largest producer of hydroelectric power. Reclamation facilities include 348 reservoirs, 456 dams, a storage capacity of 245 million acre-feet of water at the reservoirs Reclamation administers, 58 hydroelectric power plants, and more than 300 recreation sites. Collectively, these facilities:

- generate 42 billion-kilowatt hours of energy each year;
- deliver water to one out of every five western farmers for about 10 million acres of irrigated land that produces 60 percent of the Nation's vegetables and 25 percent of its fruits and nuts;
- deliver 10 trillion gallons of municipal, rural, and industrial water to over 31 million people in the West;
- deliver water to American Indians by implementing irrigation projects and providing potable water supplies to residents on reservations; and
- provide water-based recreation for almost 90 million visitors a year.

## A WESTERN WATER INITIATIVE

The West is experiencing drought conditions of historic proportions, an exploding population base, and an increase of water-dependent, federally protected species. These trends put unprecedented stress on the water supplies in many basins. The 2004 budget proposes a new initiative that will better position Interior to meet the increasing demands for the limited water resources in the West. This initiative, totaling \$11.0 million, includes the following components:

- Enhanced water management and conservation;
- Expanded science and technology;
- Preventing water management crises through pilot projects; and
- Strengthening Endangered Species Act expertise.

This initiative will provide a forward-looking water resource management program that will respond to growing water demand. In the long-term, the communities will benefit from the new western water initiative that will help them look at new technologies and management strategies for their water resources.

### RESOURCE USE GOALS

**Manage energy, non-energy minerals, forage, and forest products resources to enhance public benefit; promote responsible use; and ensure optimal value.**

**Deliver water and hydropower consistent with State and Federal law, in an environmentally responsible and cost efficient manner.**

*To be successful in dealing with today's complex water issues, we know collaboration is the key. We all must work together to forge workable solutions.*

*We are looking for new ways to make existing water supplies go further. We must continue to develop strategies where water can be used more than once in order to satisfy multiple users and stretch existing water supplies even more. This means improved water conservation, investments in science and technology, and modernization of existing infrastructures.*

*Bureau of Reclamation Commissioner John W. Keys, III, December 17, 2002*

### **Enhanced Water Management and Conservation**

Reclamation will manage the delivery of irrigation water more efficiently with the expanded use of technology, advanced water measurement systems, and other water conserving improvements. Using intrastate water banking where available and promoting water banking will add flexibility in dealing with competing demands for contracted water supplies. An increase of \$6.9 million will enhance water management and conservation through the development of pilot projects to prevent acute water conflicts in the West. Through these efforts, the Department will better manage existing water supplies.

### **Expanded Science and Technology**

– The application of science and technology is key to the success of addressing today's water issues. With an increase of \$2.7 million, Reclamation's Desalination Research and Development program will be expanded to seek ways to reduce the costs of water desalination and waste disposal. Desalination of brackish groundwater could be a cost-effective method for providing water to rural western communities and Tribes.

Reclamation, in partnership with the U.S. Geological Survey and other science organizations, will continue to advance the use of adaptive management of watersheds, and will improve the use of sound science to help

make cost-effective, performance-focused decisions. The initiative will also provide funding for peer review by the National Academy of Sciences, USGS, and other Federal and State entities with corresponding scientific expertise.

**Preventing Water Management Crises** – Reclamation is identifying unmet demands for water for all purposes anticipated in the next 25 years. It

is developing a list of critical areas with the greatest potential for conflict between existing water uses and expanded needs. Pilot projects will be selected from the critical-areas list based on the potential for cost-savings. The projects will address environmental enhancements that provide support for project

operations or optimize project operations for both water supply and environmental benefits. An increase of \$917,000 to prevent water management crises will enhance Reclamation's ability to

provide water and power in accordance with Reclamation law and contracts while complying with the requirements of the Endangered Species Act.

### **Strengthening Endangered Species Act Expertise**

– Thoroughly understanding the purpose, process, and requirements of the Endangered Species Act is critical to Reclamation's successfully managing water

**The Bureau of Reclamation has developed much of the current desalination technology used throughout the world today, and the agency will continue to work with industry partners to help reduce the costs of water desalination and waste disposal.**



*The Secretary has an important leadership role in resolving western water issues. These new initiatives will help us be more proactive – improving our ability to anticipate and hopefully avert water crises before they occur.*

*Assistant Secretary Bennett Raley, January 17, 2003*

issues during times of drought. The President's budget proposes \$458,000 for Endangered Species Act training, which will enable Reclamation employees to better plan and, if necessary, adjust or refine operations in order to meet the requirements of the ESA, maintain agency priorities and water rights, and provide for the delivery of water and power generation.

## WATER PROJECTS

**Animas La Plata** – The Colorado Ute Settlement Act Amendments of 2000 require implementation and completion of the Animas La Plata project. The Department's 2004 budget request includes \$58.0 million for the third year of construction, an increase of \$25.0 million from the 2003 request. Construction will continue on the Ridges Dam and the Durango Pumping Plant. The 280 cubic feet per second pumping plant will pump water from the Animas River to the Ridges Basin Reservoir. Pre-construction activities will focus on the Navajo Nation Municipal pipeline and Ridges Basin Inlet Conduit. Mitigation efforts for wetlands, wildlife, and cultural resources begun in 2002 will continue.

**Klamath** – The Secretary is committed to finding workable solutions to manage

western water resources where demands, more and more often, exceed the amount of water available. Enhanced water management and conservation, as proposed in the western water initiatives, will develop tools and strategies to minimize the likelihood that confrontations over water become commonplace in the West. The 2004 budget provides \$20.8 million for the overall operation of the Klamath project, including an increase of \$6.6 million to identify and initiate long-term solutions. With the increase, Reclamation will implement measures for improving water supply through the use of a water bank and will work closely with other parties in the basin to improve water quality.



## ENERGY AND MINERALS

The 2004 budget proposes to invest in the President's vision for improved energy security by expanding access for energy exploration and development, strengthening and streamlining permitting and inspection programs, and increasing investments in renewable energy programs.

**Inspection and Enforcement** – The Department's 2004 budget requests a \$2.0 million increase in the Bureau of Land Management to strengthen inspection and enforcement activities. Targeted primarily to the Powder River and San Juan

*We have entered an era of constraint on the Colorado River – not only in water supply – but also in the fiscal resources available to us. Efficient use of limited resources will have to be the watchword. Because of the sluggish economy and the need to provide for our homeland security, tighter budgets are going to be a fact of life for some time to come. Partnerships can help us strengthen our resources, and we welcome them.*

*Secretary Gale A. Norton, December 16, 2002*

basins, the budget also proposes a \$500,000 increase to expand resource monitoring to increase BLM's ability to assess the cumulative impact of oil and gas development, especially on cultural resources and species at risk.

**North Slope of Alaska** – The President and the Secretary are committed to increasing domestic energy supplies from a variety of sources in an environmentally acceptable manner, including oil and gas on Federal lands. The energy resources of Alaska's North Slope can contribute significantly to the Nation's energy security. The expected production from this region will increase domestic petroleum production and lessen U.S. dependence on foreign oil. The 2004 budget includes an increase of \$425,000 for activities on the North Slope, for a total of \$8.4 million. The funding will support planning for sales in the National Petroleum Reserve-Alaska and, potentially, the Arctic National Wildlife Refuge. Congressional authorization will be required for a lease sale to be conducted in ANWR.

The budget assumes a lease sale in ANWR in 2005 that will generate \$2.4 billion in anticipated bonus bids. Of this amount, the Federal government's \$1.2 billion share will be dedicated to research and development projects on solar power, wind energy, biomass power and fuels, geothermal energy, and other alternative energy technologies. The Department estimates that the recoverable oil from the 1002 area of ANWR is between 5.7 and 16 billion barrels of oil, and that operations would disturb about one-tenth of one percent of the 1002 land area.

**Renewable Energy** – The Administration's National Energy Plan provides a multi-dimensional approach to managing the Nation's energy needs. Interior's 2004 budget request includes a net increase of \$850,000 for renewable energy. An increase of \$550,000 will help BLM respond to industry interest in developing geothermal energy. The funding will support National Environmental Policy Act analyses, evaluation of resource poten-

tial, pre- and post-leasing actions, and inspection and enforcement. The increased funding will enable BLM to process an additional 16 applications for drilling permits; conduct 100 more inspections; and perform 100 more pre-leasing actions. A \$300,000 increase will allow BLM to conduct assessments of wind and solar energy resources and incorporate this data into new and updated land use plans, facilitating the processing of future wind and solar energy applications.

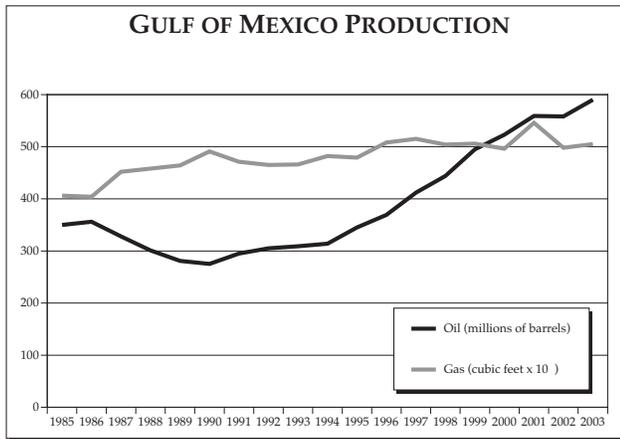


**Coalbed Natural Gas** – The BLM proposes a number of programmatic enhancements to foster environmentally sound domestic energy production. Coalbed natural gas, often referred to as coalbed methane, is an abundant, clean, domestic resource that can play a key role in reducing America's reliance on imported oil. The 2004 request includes an increase of \$650,000 to improve access to the enormous coalbed natural gas reserves located in the Powder River Basin of Wyoming and Montana and the San Juan Basin of New Mexico and Colorado. BLM will continue to reduce the rights-of-way applications backlog, and process additional applications for permits to drill.

**Tribal Mineral Resources** – Approximately 15 million acres of undeveloped energy and mineral resources may exist on individual Indian and tribal lands. The 2004 Bureau of Indian Affairs request includes a \$2.0 million increase for grants to Tribes

*Contrary to the cherished myth that energy production and the environment must always involve competing values, we can produce energy and provide jobs for the American people. And we can do it while providing a clean environment for our citizens and their families to enjoy.*

*Assistant Secretary Rebecca Watson, January 2003*



to evaluate mineral resource potential on tribal trust and restricted lands. The request also includes \$1.0 million to help Tribes expedite the development of tribal regulations governing mineral leasing and permitting and rights-of-way on tribal lands required under the Energy Policy Act of 2002. The Act allows Tribes to grant certain leases or rights-of-way on tribal land without the Secretary's approval if the leases are executed under approved tribal regulations and do not exceed 30 years.

**Offshore Minerals Development**

– For twenty years, the Minerals Management Service has been the primary steward of the mineral resources on the Outer Continental Shelf. The OCS is projected to produce over 25 percent of both the Nation's oil and natural gas in 2003. Recent exploration successes in deepwater fields in the Gulf of Mexico are critically important to providing vital domestic oil and natural gas. Technological advances have increased operators' abilities to take advantage of these finds, while reducing the potential risks and uncertainty of operating in deepwater.



Production potential from proven reserves in deepwater areas is estimated at roughly 1.8 billion barrels of oil and 5.8 trillion cubic feet of natural gas. Consequently, the resources needed for activity in the Gulf of Mexico continue to increase. The

2004 request includes an increase of \$1.6 million to support energy programs on the Outer Continental Shelf. Through these additional funds, MMS leasing and regulatory programs in the Gulf of Mexico will have additional analytical capability for proper field determinations affecting royalty relief and can enhance the information base for effective and accurate decisionmaking by updating resource characterizations in the Gulf of Mexico. The MMS will be able to prevent unnecessary delays in permit processing and keep pace with public demand for energy.

The President has directed transformation of government to an electronic business environment. The 2003 budget included a request of \$8.7 million to begin e-government transformation in the Offshore Minerals Management program. The project will build a cross-agency, e-government infrastructure that will dramatically reform and streamline offshore business operations by improving connectivity between the government and the public and create a citizen-centered web interface. In 2004, the budget request includes an increase of \$2.9 million to begin the second phase of this project. The 2004 budget also includes a \$3.0

million increase to perform necessary operational support and software upgrades to the re-engineered minerals revenue management system to ensure the continued disbursement of funds to recipients in a timely manner and to accurately account for revenue received in-kind.

**Emerging Energy Resources**

– The President's National Energy Policy encourages a clean and diverse portfolio of domestic energy supplies, including planning and developing for selected emerging domestic energy sources with significant potential. The U.S. oil production is expected to decline over the next two decades. Over the same period, the demand for natural gas is expected to increase significantly in response to conversion of electric power plants from coal to cleaner burning natural gas, and as a result of other industrial and domestic needs. Domestic production from conventional sources cannot keep pace with the increase in demand.

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Gas hydrates may provide an important alternate domestic source of natural gas. These hydrates are naturally occurring crystalline substances composed of water and gas, in which a solid water-lattice holds gas molecules in a cage-like structure. Gas hydrates are widespread in permafrost regions and beneath the sea in outer continental shelf sediments. Methane hydrates appear to be the most common. Worldwide, conservative estimates indicate that gas hydrates may contain twice the amount of carbon found in all known fossil fuels. Though the estimated range of hydrate resource levels is enormous, gas hydrates may have the potential to be a much greater source of natural gas than conventional sources.

The Methane Hydrate Research and Development Act of 2000 directs several Federal agencies, including MMS and USGS, to commence basic and applied research to identify, explore, assess, and develop methane hydrates as a source of energy. The Department's 2004 budget requests an increase of \$300,000 for MMS to develop a methodology for an analytical model to determine a quantitative estimate of the amount of hydrates in the OCS. This two-phase initiative will allow MMS to be ready with proper policy and planning for future gas production from hydrates in the OCS once industry is ready with the technology for offshore hydrate production.

The USGS will continue to provide scientific information that is an important component of the President's vision for improved energy security by focusing research on emerging energy sources. The USGS will continue to conduct national and global energy resource assessments of oil, natural gas, coalbed natural gas, gas hydrates, and coal resources, as well as evaluate the risks for environmental and ecological degradation associated with the production and use of energy resources. The Department's 2004 budget request includes \$1.5 million in base funding for emerging methane hydrate resource projects in Alaska and the Gulf of

Mexico conducted collaboratively with MMS, as well as studies of hydrate occurrence and release in marine environments.

## FOREST PRODUCTS

The 2004 budget for BLM and BIA contain increases that will improve forestry management.

**BLM Forest Management** – The 2004 BLM budget proposes an increase of \$2.5 million to revitalize and build capacity in BLM's forestry management programs, including an increase of \$1.0 million for Public Domain Forestry Management and an increase of \$1.5 million for Oregon and California Grant Lands. The increased funding will enable BLM to conduct commercial thinning treatments on 3,300 acres of O&C lands in western Oregon and on 2,000 acres of public domain lands. These treatments will produce an estimated 32 million board feet of timber to help stimulate local economies, including 30 million board feet from the O&C lands and two million board feet from the public domain lands.

**Tribal Forestry Program** – The 2004 request for BIA includes a \$2.5 million increase to improve the management of Indian forests, which cover over 17 million acres located on 260 reservations in 26 States. Current harvest rates are approximately 80 percent of the annual allowable harvest of 780 million board feet. The request includes a \$1.5 million increase to promote production and facilitate sales of forestry products produced from tribal lands. Tribes will manage most of the program through Public Law 638 contracts and self-governance compacts. The request also includes a \$1.0 million increase to double the number of integrated resource management plan grants awarded annually to Tribes. These plans are strategic plans for comprehensive management of a reservation's resources, of which a forest management plan is a key component.